ABSTRACT OF THE DISCLOSURE

A printer is capable of expressing halftones by forming halftone spots in cells each having a plurality of pixels by irradiating an exposure beam. The printer comprises a halftone

5   processing section for converting M-bit image data into N (M > N)-bit drive pulse width data for driving the exposure beam. The halftone processing section includes a threshold matrix including a plurality of threshold values corresponding to the plurality of pixels, and a converter circuit which compares a plurality of

10   threshold values output from the threshold matrix with image data, and generates drive pulse width data in accordance with the comparison result. Random noise is superposed on the plurality of threshold values or the image data, and the resultant is subjected to the comparison, whereby generation of tone jump is suppressed.

15   The halftone processing section further includes pulse position determining means for determining a position of a drive pulse for a pixel under processing in accordance with drive pulse width data of pixels adjacent to the pixel under processing, and a pulse width modulator for generating a drive pulse signal at the determined

20   drive pulse position according to the drive pulse width data.

32